

# **NON-PRESCRIPTION BARRIER CONTRACEPTIVES and SPERMICIDES**

## **I. INTRODUCTION**

Non-prescription barrier contraceptives (male and female condoms) are an important contraceptive option because of their wide availability, relative ease of use, and efficacy when used correctly. Similarly, spermicides have several important advantages - they are simple to use, inexpensive, available without prescription, and provide freedom from systemic side effects, except the occasional allergic reaction. The effectiveness of spermicides as a sole method of contraception is less than that of condoms, but their use in combination with barrier methods (barrier method *plus* concurrent use of a spermicide) adds significantly to their effectiveness. In addition, lubricated male latex condoms (without nonoxynol-9) or female vaginal sheaths, when used consistently and correctly, provide a high degree of protection against both the acquisition and transmission of a number of sexually transmitted pathogens, including gonorrhea, chlamydia, syphilis, and some viral pathogens, including Hepatitis B virus, Herpes Simplex Virus, and Human Immunodeficiency Virus.

Efficacy rates for barrier methods and spermicidal preparations:

- A. Male Condoms
  - 1. Perfect use failure rate in the first year of use: 2%
  - 2. Typical use failure rate in the first year of use: 15%
- B. Female Condoms
  - 1. Perfect use failure rate in the first year of use: 5%
  - 2. Typical use failure rate in the first year of use: 21%
- C. Spermicidal Preparations
  - 1. Perfect use failure rate in the first year: 15%
  - 2. Typical use failure rate in the first year: 29%

Available non-prescription barrier and spermicidal contraceptives include:

- A. Condoms
  - 1. Male condoms: latex, polyurethane, and animal membrane
  - 2. Female condoms and polyurethane vaginal sheaths
- B. Spermicides
  - 1. Films
  - 2. Sponges
  - 3. Foams
  - 4. Jellies and creams
  - 5. Suppositories

## **II. GENERAL INFORMATION**

- A. Condoms: Condoms are appropriate for anyone at risk for STIs, especially non-monogamous couples and adolescents. Condoms can be used as primary contraception or as a back-up method. Male and female condoms should **not** be used together as they can adhere to each other and cause slippage, breakage or dislodgement.
  1. Male condoms: The male condom is a thin sheath that is placed over the erect penis prior to any sexual act and worn until after ejaculation. It acts as a mechanical barrier by preventing the sperm from penetrating the upper female reproductive tract and can prevent contact with genital lesions and infectious secretions.
    - a. If used consistently and correctly, prevents both unintended pregnancy and sexually transmitted infections (STIs).
    - b. Must be used with every act of vaginal intercourse to prevent pregnancy.
    - c. Intended for one-time use only; re-use is not recommended.
    - d. Synthetic condom use during oral or anal sex is recommended for STI protection.
    - e. Animal membrane condoms have small pores that may permit the passage of viruses and are **NOT** recommended for STI protection.
    - f. Polyurethane condoms are recommended for all couples when either the man or the woman has a latex allergy. Non-latex condoms have a slightly higher breakage and slippage rate than latex condoms.
    - g. Should not be used along with a female condom.
  2. Female condoms: The female condom acts as a mechanical barrier by preventing the sperm from penetrating the upper female reproductive tract and must be used with every act of intercourse.
    - a. It reduces the risk of acquiring sexually transmitted infections.
    - b. It may be inserted up to 8 hours before intercourse. It is intended for one-time use only; re-use is not recommended.
    - c. Can be used with a spermicidal lubricant, water-based lubricant or oil-based lubricant (polyurethane does not disintegrate with an oil-based lubricant as latex does).
    - d. Is an option for women who are felt to be at significant risk of acquiring sexually transmitted infections and whose partners refuse to use male condoms.
    - e. It is an excellent choice for barrier contraception when the client or her male partner has a latex allergy or sensitivity.
    - f. Disadvantages include high typical use failure rate (possibly due to higher difficulty to use correctly and acceptability to male partner), and relatively high cost.
    - g. Should not be used along with a male condom.
- B. Spermicides consist of a spermicidal agent and an inert carrier substance. Spermicides act by immobilizing or killing sperm on contact. The most common spermicidal agent is nonoxynol-9, a surfactant agent that destroys the cell membrane of the spermatozoa.
  1. Spermicides do **not** protect against HIV and frequent spermicide use may cause tissue irritation that theoretically could increase susceptibility to HIV.

2. They need to be placed into the vagina prior to each act of intercourse.
3. Spermicides are easy to use but require some instructions. Each formulation of spermicide requires slightly different insertion so client should follow the specific package instructions for the spermicide to be used.
4. They can be used as a primary method of contraception or as a supplemental method to other forms of birth control.
5. If irritation occurs immediately after insertion of the spermicide, changing to an alternative product with different carrier constituents or changing to a less concentrated product may help.
6. If symptoms persist more than a day or two after discontinuing the spermicide exposure, evaluate for underlying factors, including the possibility of STD exposure. Spermicides should not be used in the presence of genital epithelial disruption.

## II. CLIENT SELECTION

Any comprehensive or limited service client or individual requesting the use of a non-prescription barrier contraceptive may be provided it as long as they do not have a contraindication.

Contraindications: (USMEC 3: Risks outweigh advantages for method use or USMEC 4: Unacceptable risk for method use)

### A. Latex barriers:

1. Allergy to latex rubber (USMEC 3)

### B. Spermicidal products:

1. Allergy or history of significant skin irritation with acute or chronic exposure to spermicides.
2. Significant risk factors that make the use of nonoxynol-9 inappropriate
  - a. High risk for HIV (USMEC 4) - Repeated and high-dose use of the spermicide nonoxynol-9 was associated with increased risk for genital lesions, which might increase the risk for HIV infection.
  - b. HIV infection (USMEC 3) – Use of spermicides or diaphragms (with spermicide) can disrupt the cervical mucosa, which might increase viral shedding and HIV transmission to non-infected sex partners.
  - c. Antiretroviral (ARV) therapy (USMEC 3) – not a drug interaction but related to increased risks in presence of HIV - see above
  - d. History of toxic shock (sponge only USMEC 3)

## III. CLIENT EDUCATION/ INFORMED CONSENT

Within the context of a limited or comprehensive contraceptive visit the client must be:

- A. Provided counseling regarding all contraceptive options available.

- B. Advised regarding the risks and benefits of the method and instruction its effective use if a non-prescription barrier is chosen. Follow the manufacturer's instruction on use.
- C. Given counseling on STI/HIV risks.
- D. Provided with the clinic site's request for medical service consent form.
- E. Given written educational materials in the form of a client fact sheet for the chosen non-prescription method.

For all other clients:

- A. Written educational materials should be available to clients and others regarding the use of each type of non-prescription contraceptive product.
- B. Information on Family Planning Services and other contraceptive options.

#### IV. MEDICAL SCREENING AND EVALUATION

None is required prior to the provision of a non-prescription barrier contraceptive methods or spermicides.

#### REFERENCES

CDC. Medical Eligibility Criteria for Contraceptive Use. MMWR / July 29, 2016 / Vol. 65 / No. 3

Hatcher, R., et. Al. Contraceptive Technology. 20th Edition, 2011.